

also rejected claims 5-7 under 35 U.S.C. §103(a) as being unpatentable over Lo (U.S. Patent No. 6,370,024) in view of Lofland et al. (U.S. Patent No. 6,625,021) and Skofljanec (U.S. Patent No. 6,788,539) as applied to claims 1, 2, 4 and 8 above and further in view of Gonsalves (U.S. Patent No. 6,212,074, hereafter "Gonsalves"); Applicants respectfully traverse these rejections.

In regards to Lo, Lofland and Skofljanec combination, first, the Skofljanec's patent "Electronic control device for use in vehicle" is specifically designed to be used for a vehicle, where it includes a metallic house with internal rail and "each side walls 18 of the housing body 11 has a mounting bracket 32 with a first bracket leg 34 and a second bracket leg 36 arranged perpendicular to the first one in order to fasten the mounting bracket 32 to the side wall 18... The second bracket legs 34 of the mounting bracket 32 are each provided with openings 40 through which the housing 10 can be fastened, for example, screwed to the car body." (See col. 2 lines 64 - 67, col. 3 lines 6-9 and Figs. 1 & 2 of Skofljanec). Skofljanec discloses using the L-shape mounting structure; such as mounting bracket 32, the bracket legs 34, 36, to fasten the metallic house to the car body. The Examiner states "a horizontally extending planar plate (36) at a level lower than a top surface of the base (28)", the so called base 28 is a plug socket 28 (see col. 2 line 39, line 48, and col. 3 line 56 and line 59 of Skofljanec). The mounting structure of our application deals with a new way of fastening a heat sink onto a heat generating semiconductor chip on a PCB while Skofljanec's mounting structure is to mount a metallic house onto the car body, although the metallic house has a PCB board or socket receptacles for capacitors on a PCB inside, nevertheless, mounting a metallic house to a car body is irrelevant to mounting a heat sink to a semiconductor chip of a PCB.

Second, Lofland uses a latch assembly 96 including a fan cap 60, wire bails 70, a latch 80, the projection of a base 10. It requires the fan cap piece, the latch assembly, a spreader plate 20 and the base piece to work together as the fastening structure in Lofland, while the current application

use one piece fastening structure 11 to achieve the same function. Lofland doesn't disclose or teach using a hinge structure to secure the T-shaped arm of Lo to a planar plate. If we replace Lofland's fastening structure with the applicants' brackets, then Lofland heat sink will not work, Lofland needs the spreader plate 20 and the base 10 to hold the heat pipes up from the component of the PCB so that the air from the fan can flow through, and the fins in Lofland have to horizontally stacked together to allow air goes through sideway or underneath. It is different arrangement from how the fins, heat sink and the base are fastened together in the current application.

Therefore, Applicants respectfully submit that the features of the claim would not be obvious to one skilled in the art. The standard for obviousness is described in a recent cases, In re Dance, 48 USPQ2d 1635 (CAFC 1998), as follows.

To establish a *prima facie* case of obviousness based on a combination of the content of various references, there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. *In re Raynes*, 7 F.3d 1037, 1039, 28 USPQ2d 1630, 1631 (Fed. Cir. 1993); *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Obviousness can not be established by hindsight combination to produce the claimed invention. *In re Gorman*, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). As discussed in *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985), it is the prior art itself, and not the applicant's achievement, that must establish the obviousness of the combination. In re Dance, 48 USPQ2d 1635, 1637 (CAFC 1998).

And In re Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998) as follows.

"When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." In re Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998). Stated another way, the prior art as a whole must "suggest the desirability" of the combination. In re Beattie, 974 F.2d 1309, 1311 (Fed. Cir. 1992) (internal quotation omitted); Winner Int'l Royalty Corp. v. Wang, 202 F.3d 1340 (Fed. Cir. 2000) ("Trade-offs often concern what is feasible, not what is, on balance, desirable. Motivation to combine requires the latter." (emphasis added)). The source of the teaching, suggestion, or motivation may be "the nature of the problem," "the teachings of the pertinent references," or "the ordinary knowledge of those skilled in the art." In re Rouffet, 149 F.3d at 1355.

Also as stated in MPEP §2143.01:


The mere fact that references can be combined or modified do not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)

Because the rejections of claims 1-8 are based Lo, Lofland and Skofljanec, Applicant respectfully submits that there is no teaching, suggestion or motivation within the prior art to combine the prior art as the combination of features recited in Applicant's claims. Focusing on the element of "a T-shape arm hinged with one end of the planar plate, wherein when the T-shape arm is inserted into the T-shape slot, the planar plate extending horizontally at a level lower than the top surface of the base" of independent claim 1, there is no teach or disclose about this element in the cited prior art.

If the Examiner believes that a further telephonic interview will facilitate allowance of the claims, he is respectfully requested to contact the undersigned at (610) 446-5886. For the reasons stated above, Applicants respectfully assert that the pending claims are in condition for allowance. Reconsideration and allowance of the pending claims are respectfully requested.

Respectfully submitted,

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